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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,951

08/25/2006

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EXAMINER

LARKIN, DANIEL SEAN

ART UNIT

PAPER NUMBER

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/581,951	<b>Applicant(s)</b> SCHILLING ET AL.	
	<b>Examiner</b> DANIEL S. LARKIN	<b>Art Unit</b> 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/019149 (Abdel-Rehim) in view of US 5,064,418 (Cronin).

With respect to the limitations of claim 1, Abdel-Rehim discloses a method and apparatus for sample preparation using solid phase microextraction, comprising the steps of: providing a syringe (2) and hollow needle (8); drawing a sample for extraction and introduction into a gas chromatograph, whereby for extraction of an analyte of interest the sample is flushed through a stationary material (10, 11). Abdel-Rehim fails to locate the stationary phase between the hollow needle and the syringe.

Cronin discloses an apparatus utilizing filter means for use with a syringe and needle, whereby the apparatus, comprises a hollow needle (12) connected to a syringe (10), wherein in between the needle (12) and the syringe(10), a chamber (18)/filter (11) is located containing a filter material (23) within. The filter material also appears to have a volume greater than the volume of the hollow needle (12). Modifying the syringe of Abdel-Rehim with the arrangement of Cronin would have been obvious to one of ordinary skill in the art as means of containing the filter material as well as allowing the operator to utilize a "good" amount of stationary material without hampering the

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movement of the syringe piston; thus allowing for more sample to be collected for greater accuracy.

As to the limitation of providing a stationary phase material having a volume greater than the interior of the needle, the examiner argues that this feature is well within the purview of one of ordinary skill in the art as means of controlling the amount of sample to be contained within the stationary material,; and furthermore adjusting the size of the stationary material to find the optimum result is also deemed to be obvious to one of ordinary skill in the art. Applicants' have failed to provide any argument of criticality for providing stationary material having a volume greater than the interior volume of the needle, which leads the examiner to believe that this feature is simply a choice of design which would be obvious to one of ordinary skill in the art.

With respect to the limitation of claim 2, Abdel-Rehim discloses a syringe (2) and a hollow needle (8) connected to the syringe body (2) wherein, the syringe body contains an extraction material (11), which may comprise filter material having a coating. Abdel-Rehim fails to expressly provide a chamber between the needle and the syringe.

Cronin discloses an apparatus utilizing filter means for use with a syringe and needle, whereby the apparatus, comprises a hollow needle (12) connected to a syringe (10), wherein in between the needle (12) and the syringe(10), a chamber (18)/filter (11) is located containing a filter material (23) within. The filter material also appears to have a volume greater than the volume of the hollow needle (12). Modifying the syringe of Abdel-Rehim with the arrangement of Cronin would have been obvious to one of

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ordinary skill in the art as means of containing the filter material as well as allowing the operator to utilize a “good” amount of stationary material without hampering the movement of the syringe piston; thus allowing for more sample to be collected for greater accuracy.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/019149 (Abdel-Rehim) in view of US 5,064,418 (Cronin) as applied to claim 2 above, and further in view of JP 10-10104 (Takii et al.).

Abdel-Rehim discloses using a solvent to transport the collected sample to the chromatograph; but, fails to disclose heating means attached to the chamber. Cronin also fails to disclose use of heating means.

Takii et al. disclose a syringe measuring device used to inject a sample into a gas chromatograph, whereby the device is provided with a syringe (20) having a hollow needle (42) attached. The syringe is placed within a case (12) that acts as a heater for the syringe, see Figures 1, 3, and 5. Providing a heater for the syringe/chamber would have been obvious to one of ordinary skill in the chromatography art as a means of desorbing the sample from the stationary/extraction material in order for the gas chromatograph to detect the sample.

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4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/019149 (Abdel-Rehim) in view of US 5,064,418 (Cronin) as applied to claim 2 above, and further in view of US 4,849,179 (Reinhardt et al.).

Abdel-Rehim discloses using a solvent to transport the collected sample to the chromatograph; but, fails to disclose heating means attached to the chamber. Cronin also fails to disclose use of heating means.

Reinhardt et al. teach the use of a thermal desorption heater (9) in an injector for a gas chromatograph; see abstract and Figure 2. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a heater as taught by Reinhardt et al. in the invention taught by Abdel-Rehim in view of Cronin to desorb the sample, since Reinhardt et al. teach the use of a heater surrounding the extraction material for desorption to assist in transferring trace amounts of absorbed substances into a gas chromatograph; see columns 1-2.

### ***Response to Arguments***

5. Applicants' arguments filed 08 May 2009 have been fully considered but they are not persuasive.

With respect to Applicants' argument that the one of ordinary skill in the art would not look to Cronin to cure the deficiencies of Abdel-Rehim, the examiner respectfully disagrees. Although the technology of a filter is different than solid phase extraction, both technologies are related to sample treatment such that both technologies are responsible for removing matter from a sample or sample stream. The examiner is not

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suggesting substituting the entire filter arrangement in Cronin for the phase material in Abdel-Rehim. Cronin shows that treating a sample passing from a hollow needle to a syringe body with a material located in a chamber between the needle and the syringe is well known in the art.

With respect to Applicants' argument that the one of ordinary skill in the art would not look to Takii et al. to cure the deficiencies of Abdel-Rehim, the examiner respectfully disagrees. Although the technology of Takii et al. is different than that of Abdel-Rehim both references are analogous in that both references relate to syringe measuring devices and one of ordinary skill in the syringe art would be well aware of the different adaptations to syringes.

In response to Applicants' arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The examiner never stated that Takii et al. is related to thermal desorption. Takii et al. is provided to show that a heating means can be provided to a syringe body.

With respect to Applicants' argument that the one of ordinary skill in the art would not look to Reinhardt et al. to cure the deficiencies of Abdel-Rehim, the examiner respectfully disagrees. Reinhardt et al. disclose a thermal device like that of Abdel-Rehim, except that Reinhardt et al. fail to disclose a syringe. Simply because Reinhardt

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et al. fail to disclose a syringe does not disqualify the reference as a teaching for using a heating means with a thermal desorption device. One of ordinary skill in the device would be well aware of the different adaptations to thermal desorption devices.

In response to Applicants' arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicants appear to take the position that because Reinhardt et al. fail to disclose a "needle trap device" that somehow the teachings of Reinhardt et al. cannot be combined with the teachings of Abdel-Rehim. Abdel-Rehim disclose the teachings of a trap device that thus this teaching does not need to be provided in the other references used in the rejection.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to Applicants' disclosure.

US 5,064,418 (Cronin) was cited in both the last Office Action and this one; however, the citation was inadvertently left off the last PTO-892 filed by the examiner. Thus, this citation is being corrected with this Office Action.



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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL S. LARKIN whose telephone number is (571)272-2198. The examiner can normally be reached on 8:30 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel S. Larkin/  
Primary Examiner, Art Unit 2856  
05 June 2009